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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,566	09/25/2003	Max I. Gurth	8647-PA04	4011

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EXAMINER

HANAN, DEVIN J

ART UNIT	PAPER NUMBER
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3745

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary	Application No. 10/669,566	Applicant(s) GURTH, MAX I.	
	Examiner Devin Hanan	Art Unit 3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6,8,9,11,18-20 and 22 is/are allowed.
- 6) ☒ Claim(s) 1-5,7,10,12-17 and 21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/25/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 7, 10, 12-17 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Possell (U.S. Patent 5,192,182).

Possell discloses a rotary disc pump for pumping fluid materials with a housing () having a front (14) and a back wall (17) forming a chamber with a generally coaxial inlet in a front wall (13) and a generally tangential outlet (abs lines 3-7);

an impeller mounted co-axially within said chamber and comprising a shaft (25) mounted in a back wall of said housing and having an outer end extending from a housing and an inner end within said chamber, at least a first circular disc (27) mounted on the inner end of a shaft, and at least a second disc (leftmost disk 30) mounted in axially spaced relation to a first disc and having an opening in the center thereof (34);
and

a converging member (26) extending co-axially of a shaft from a first disc converging toward a point at least one half the distance to a second disc (extends past more than 2 discs).

Regarding claim 2, Possell discloses a converging member (26) with a conical surface and extends at least to an inner surface of said second disc (second leftmost disk 30).

Regarding claim 3, Possell discloses a conical member (26) extending beyond a second disc.

Regarding claim 4, Possell discloses a conical member (26) extending beyond a second disc to at least a third disc.

Regarding claim 5, Possell discloses a conical member is a frustum of a cone (col. 2 lines 5-9).

Regarding claim 7, Possell discloses a conical member is a frustum of a cone (col. 2, lines 5-9).

Regarding claim 10, Possell discloses a converging member has a generally concave surface (col. 2, lines 5-9) and extends at least to an inner surface of a second disc.

Regarding claim 12, Possell discloses a rotary disc pump for pumping fluid materials with a housing having a chamber defined by an inner (17) and an outer side wall (14) joined by a generally circular peripheral wall (20) with a generally coaxial inlet in said outer wall (14) and a generally tangential outlet circular peripheral wall (abs lines 3-7):

an impeller mounted co-axially within a chamber and comprising a shaft (25) mounted in said inner wall of a housing and having an outer end extending from said housing and an inner end within said chamber, at least a first circular disc (27) mounted

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on the inner end of said shaft and at least a second disc (leftmost disc 30) mounted to said first disc in axially spaced relation to said first disc and having a circular opening in the center thereof (34) ; and

a conical member (26) having a base at said first disc and extending co-axially of said shaft from said first disc at least half the distance to said second disc.

Regarding claim 13, Possell discloses a conical member extends at least to an inner surface of the second disc (extends past discs 30).

Regarding claim 14, Possell discloses a conical member extends at least to an outer surface of the second disc (extends past discs 30).

Regarding claim 15, Possell discloses a rotor has an outer disc (right most disc 30) and conical member (26) extending at least to an inner surface of the outer disc.

Regarding claim 16, Possell discloses the conical member extends at least to an outer surface of said outer disc (figure 1).

Regarding claim 17, Possell discloses the conical member extends beyond an outer surface of the outer disc (figure 1).

Regarding claim 21, Possell discloses the conical member is a frustum of a cone (col. 2 line 8).

Allowable Subject Matter

Claims 6, 8-9,11, 18-20 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior Art

The patent to Possell (U.S. Patent 5,165,846) was cited for its teaching of a disc impeller.

The patent to N.B Wales (U.S. Patent 2,632,598) and Brown et al. (U.S. Patent 2,087,834) were cited for the teachings of disc impellers.

The patent to List (U.S. Patent 2,505,125) was cited for its teaching of a helical converging member.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devin Hanan whose telephone number is 571-272-6089. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on 571-272-4820. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Devin Hanan
Patent Examiner
Art Unit 3745



EDWARD K. LOOK
SUPERVISORY PATENT EXAMINER
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5/31/05